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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,619	11/18/2003	Harold W. Johnson	2464	4877

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EXAMINER	
MEW, KEVIN D	

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2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,619	JOHNSON, HAROLD W.	
	Examiner	Art Unit	
	Kevin Mew	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,9-11,19 and 20* is/are rejected.

7)☒ Claim(s) *2-8, 12-18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/18/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 9, 10, 11, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinz et al. (US Publication 20070212069 A1).

Regarding claim 1, Heinz discloses a communication system comprising:

a first circuit bonding device (Ethernet switch 236, Fig. 5);

a second circuit bonding device (Ethernet switch 282, Fig. 5);

a third circuit bonding device (Ethernet switch 280, Fig. 5);

first bonded circuits (bonding circuits 248, 252, Fig. 5) coupling the first circuit bonding system (coupling first bonding system comprising optical switch, Ethernet switch, user, elements 232, 236, 228, Fig. 5) and the second circuit bonding system (and second bonding system comprising optical switch, Ethernet switch, transceivers, user, elements 262, 266, 284, 286, 282, 258, Fig. 5);

second bonded circuits (bonding circuits 290, 294, Fig. 5) coupling the first circuit bonding system (coupling first bonding system comprising optical switch, Ethernet switch, user, elements 232, 236, 228, Fig. 5) and the third circuit bonding system (and third bonding system

comprising optical switches, Ethernet switches, transceivers, servers, FSOs, user, elements 260, 264, 268, 272, 276, 278, 274, 270, 280, 256, Fig. 5);

third bonded circuits (bonding circuits 288, 292, Fig. 5) coupling the second circuit bonding device (coupling Ethernet switch 282 via fiber ring 100, Fig. 5) and the third circuit bonding device (Ethernet switch 280 via optical switch 260, Ethernet switch 264, servers 268, 270, transceivers 272, 274, FSOs 276, 278, Fig. 5);

Heinz may not explicitly show the first circuit bonding device configured to receive first communications from a first user and transfer the first communications over the first bonded circuits to the second circuit bonding device and receive second communications from the first user and transfer the second communications over the second bonded circuits to the third circuit bonding device;

the second circuit bonding device configured to receive third communications from a second user and transfer the third communications over the first bonded circuits to the first circuit bonding device and receive fourth communications from the second user and transfer the fourth communications over the third bonded circuits to the third circuit bonding device;

the third circuit bonding device configured to receive fifth communications from a third user and transfer the fifth communications over the second bonded circuits to the first circuit bonding device and receive sixth communications from the third user and transfer the sixth communications over the third bonded circuits to the second circuit bonding device;

the first circuit bonding device configured to receive the third communications from the first bonded circuits and transfer the third communications to the first user and receive the fifth communications from the second bonded circuits and transfer the fifth communications to the first user;

the second circuit bonding device configured to receive the first communications from the first bonded circuits and transfer the first communications to the second user and receive the sixth communications from the third bonded circuits and transfer the sixth communications to the second user; and

the third circuit bonding device configured to receive the second communications from the second bonded circuits and transfer the second communications to the third user and receive the fourth communications from the third bonded circuits and transfer the fourth communications to the third user.

However, Heinz teaches users communicate bi-directionally with each other through EOAN fiber ring 100 and switches, servers, transceivers, FSOs (paragraphs 0096, 0095 and Fig. 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Ethernet optical network of Heniz with the teaching of Heinz in allowing users communicate bi-directionally with each other through EOAN fiber ring 100 and switches, servers, transceivers, FSOs such that the EOAN network of Heinz will be able to show the first circuit bonding device configured to receive first communications from a first user and transfer the first communications over the first bonded circuits to the second circuit bonding

device and receive second communications from the first user and transfer the second communications over the second bonded circuits to the third circuit bonding device; the second circuit bonding device configured to receive third communications from a second user and transfer the third communications over the first bonded circuits to the first circuit bonding device and receive fourth communications from the second user and transfer the fourth communications over the third bonded circuits to the third circuit bonding device; the third circuit bonding device configured to receive fifth communications from a third user and transfer the fifth communications over the second bonded circuits to the first circuit bonding device and receive sixth communications from the third user and transfer the sixth communications over the third bonded circuits to the second circuit bonding device; the first circuit bonding device configured to receive the third communications from the first bonded circuits and transfer the third communications to the first user and receive the fifth communications from the second bonded circuits and transfer the fifth communications to the first user; the second circuit bonding device configured to receive the first communications from the first bonded circuits and transfer the first communications to the second user and receive the sixth communications from the third bonded circuits and transfer the sixth communications to the second user; and the third circuit bonding device configured to receive the second communications from the second bonded circuits and transfer the second communications to the third user and receive the fourth communications from the third bonded circuits and transfer the fourth communications to the third user.

The motivation to do so is to provide high speed data communications such as real-time remote imaging, carrier grade VoIP, and high quality video conferencing, real-time distance

learning and interconnectivity for a plurality of networks and to allow users to communicate bi-directionally with each other.

Regarding claim 9, Heinz discloses the communication system of claim 1 wherein the first bonded circuits (bonding circuits 248, 252, Fig. 5), the second bonded circuits (bonding circuits 290, 294, Fig. 5), and the third bonded circuits (bonding circuits 288, 292, Fig. 5) comprise unbundled network elements (are separate network elements, Fig. 5).

Regarding claim 10, Heinz discloses all aspects of the communication system of claim 1 above. Heinz may not explicitly show

the first communications received from the first user into the first circuit bonding device and transferred from the second circuit bonding device to the second user comprise Ethernet communications;

the second communications received from the first user into the first circuit bonding device and transferred from the third circuit bonding device to the third user comprise Ethernet communications;

the third communications received from the second user into the second circuit bonding device and transferred from the first circuit bonding device to the first user comprise Ethernet communications;

the fourth communications received from the second user into the second circuit bonding device and transferred from the third circuit bonding device to the third user comprise Ethernet communications;

the fifth communications received from the third user into the third circuit bonding device and transferred from the first circuit bonding device to the first user comprise Ethernet communications; and

the sixth communications received from the third user into the third circuit bonding device and transferred from the second circuit bonding device to the second user comprise Ethernet communications.

However, Heinz teaches the communications between users are done through the Ethernet switches (paragraphs 0095, 0096).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Ethernet optical network of Heniz with the teaching of Heinz in performing communications between users through the Ethernet switches such that the communications between users and the Ethernet switches/bonding devices are Ethernet communications.

The motivation to do so is to provide high speed Fast Ethernet and Gigabit Ethernet communications to users.

Regarding claim 11, Heinz discloses a method of operating a communication system comprising a first circuit bonding device (Ethernet switch 236, Fig. 5), a second circuit bonding

device (Ethernet switch 282, Fig. 5), a third circuit bonding device (Ethernet switch 280, Fig. 5), first bonded circuits (bonding circuits 248, 252, Fig. 5) coupling the first circuit bonding system (coupling first bonding system comprising optical switch, Ethernet switch, user, elements 232, 236, 228, Fig. 5) and the second circuit bonding system (and second bonding system comprising optical switch, Ethernet switch, transceivers, user, elements 262, 266, 284, 286, 282, 258, Fig. 5), second bonded circuits (bonding circuits 290, 294, Fig. 5) coupling the first circuit bonding system (coupling first bonding system comprising optical switch, Ethernet switch, user, elements 232, 236, 228, Fig. 5) and the third circuit bonding system (and third bonding system comprising optical switches, Ethernet switches, transceivers, servers, FSOs, user, elements 260, 264, 268, 272, 276, 278, 274, 270, 280, 256, Fig. 5), and third bonded circuits (bonding circuits 288, 292, Fig. 5) coupling the second circuit bonding device (coupling Ethernet switch 282 via fiber ring 100, Fig. 5) and the third circuit bonding device (Ethernet switch 280 via optical switch 260, Ethernet switch 264, servers 268, 270, transceivers 272, 274, FSOs 276, 278, Fig. 5).

Heniz may not explicitly show comprising:

in the first circuit bonding device, receiving first communications from a first user and transferring the first communications over the first bonded circuits to the second circuit bonding device and receiving second communications from the first user and transferring the second communications over the second bonded circuits to the third circuit bonding device;

in the second circuit bonding device, receiving third communications from a second user and transferring the third communications over the first bonded circuits to the

first circuit bonding device and receiving fourth communications from the second user and transferring the fourth communications over the third bonded circuits to the third circuit bonding device;

in the third circuit bonding device, receiving fifth communications from a third user and transferring the fifth communications over the second bonded circuits to the first circuit bonding device and receiving sixth communications from the third user and transferring the sixth communications over the third bonded circuits to the second circuit bonding device;

in the first circuit bonding device, receiving the third communications from the first bonded circuits and transferring the third communications to the first user and receiving the fifth communications from the second bonded circuits and transferring the fifth communications to the first user;

in the second circuit bonding device, receiving the first communications from the first bonded circuits and transferring the first communications to the second user and receiving the sixth communications from the third bonded circuits and transferring the sixth communications to the second user; and

in the third circuit bonding device, receiving the second communications from the second bonded circuits and transferring the second communications to the third user and receiving the fourth communications from the third bonded circuits and transferring the fourth communications to the third user.

However, Heinz teaches users communicate bi-directionally with each other through EOAN fiber ring 100 and switches, servers, transceivers, FSOs (paragraphs 0096, 0095 and Fig. 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Ethernet optical network of Heniz with the teaching of Heinz in allowing users communicate bi-directionally with each other through EOAN fiber ring 100 and switches, servers, transceivers, FSOs such that the EOAN network of Heinz will be able to show in the first circuit bonding device, receiving first communications from a first user and transferring the first communications over the first bonded circuits to the second circuit bonding device and receiving second communications from the first user and transferring the second communications over the second bonded circuits to the third circuit bonding device; in the second circuit bonding device, receiving third communications from a second user and transferring the third communications over the first bonded circuits to the first circuit bonding device and receiving fourth communications from the second user and transferring the fourth communications over the third bonded circuits to the third circuit bonding device; in the third circuit bonding device, receiving fifth communications from a third user and transferring the fifth communications over the second bonded circuits to the first circuit bonding device and receiving sixth communications from the third user and transferring the sixth communications over the third bonded circuits to the second circuit bonding device; in the first circuit bonding device, receiving the third communications from the first bonded circuits and transferring the third communications to the first user and

receiving the fifth communications from the second bonded circuits and transferring the fifth communications to the first user; in the second circuit bonding device, receiving the first communications from the first bonded circuits and transferring the first communications to the second user and receiving the sixth communications from the third bonded circuits and transferring the sixth communications to the second user; and in the third circuit bonding device, receiving the second communications from the second bonded circuits and transferring the second communications to the third user and receiving the fourth communications from the third bonded circuits and transferring the fourth communications to the third user.

The motivation to do so is to provide high speed data communications such as real-time remote imaging, carrier grade VoIP, and high quality video conferencing, real-time distance learning and interconnectivity for a plurality of networks and to allow users to communicate bi-directionally with each other.

Regarding claim 19, Heinz discloses the method of claim 11 wherein the first bonded circuits (bonding circuits 248, 252, Fig. 5), the second bonded circuits (bonding circuits 290, 294, Fig. 5), and the third bonded circuits (bonding circuits 288, 292, Fig. 5) comprise unbundled network elements (are separate network elements, Fig. 5).

Regarding claim 20, Heinz discloses all aspects of the method of claim 11 above.

Heinz may not explicitly show wherein:

the first communications received from the first user into the first circuit bonding device and transferred from the second circuit bonding device to the second user comprise Ethernet communications;

the second communications received from the first user into the first circuit bonding device and transferred from the third circuit bonding device to the third user comprise Ethernet communications;

the third communications received from the second user into the second circuit bonding device and transferred from the first circuit bonding device to the first user comprise Ethernet communications;

the fourth communications received from the second user into the second circuit bonding device and transferred from the third circuit bonding device to the third user comprise Ethernet communications;

the fifth communications received from the third user into the third circuit bonding device and transferred from the first circuit bonding device to the first user comprise Ethernet communications; and

the sixth communications received from the third user into the third circuit bonding device and transferred from the second circuit bonding device to the second user comprise Ethernet communications.

However, Heinz teaches the communications between users are done through the Ethernet switches (paragraphs 0095, 0096).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Ethernet optical network of Heniz with the teaching of Heinz in performing communications between users through the Ethernet switches such that the communications between users and the Ethernet switches/bonding devices are Ethernet communications.

The motivation to do so is to provide high speed Fast Ethernet and Gigabit Ethernet communications to users.

Allowable Subject Matter

2. Claims 2-8, 12-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 2, the communication system of claim 1 wherein if a fault occurs on the second bonded circuits:

the first circuit bonding device is configured to automatically transfer the second communications over the first bonded circuits to the second circuit bonding device in response to the fault;

the second circuit bonding device is configured to automatically receive the second communications from the first bonded circuits and transfer the second

communications over the third bonded circuits to the third circuit bonding device in response to the fault; and

the third circuit bonding device is configured to automatically receive the second communications from the third bonded circuits in response to the fault.

In claim 5, the communication system of claim 1 wherein if the first user requires a traffic burst to the third user:

the first circuit bonding device is configured to receive seventh communications for the traffic burst from the first user and automatically transfer the seventh communications over the first bonded circuits to the second circuit bonding device in response to the traffic burst;

the second circuit bonding device is configured to automatically receive the seventh communications from the first bonded circuits and transfer the seventh communications over the third bonded circuits to the third circuit bonding .device in response to the traffic burst; and

the third circuit bonding device is configured to automatically receive the seventh communications from the third bonded circuits and transfer the seventh communications to the third user in response to the traffic burst.

In claim 7, the communication system of claim 1 further comprising:

a bonding device control system configured to receive user commands, and in response to the user commands, to transfer a first device command to the first circuit bonding device, transfer a second device command to the second circuit bonding device, and transfer a third device command to the third circuit bonding device; and

wherein the first circuit bonding device is configured to receive the first device command, and in response, to receive seventh communications from the first user and transfer the seventh communications over the first bonded circuits to the second circuit bonding device;

the second circuit bonding device is configured to receive the second device command, and in response, to receive the seventh communications from the first bonded circuits and transfer the seventh communications over the third bonded circuits to the third circuit bonding device; and

the third circuit bonding device is configured to receive the third device command, and in response, to receive the seventh communications from the third bonded circuits and transfer the seventh communications to the third user.

In claim 12, the method of claim 11 wherein if a fault occurs on the second bonded circuits:

in the first circuit bonding device, automatically transferring the second communications over the first bonded circuits to the second circuit bonding device in response to the fault;

in the second circuit bonding device, automatically receiving the second communications from the first bonded circuits and transferring the second communications over the third bonded circuits to the third circuit bonding device in response to the fault; and

in the third circuit bonding device, automatically receiving the second communications from the third bonded circuits in response to the fault.

In claim 15, the method of claim 11 wherein if the first user requires a traffic burst to the third user:

in the first circuit bonding device, receiving seventh communications for the traffic burst from the first user and automatically transferring the seventh communications over the first bonded circuits to the second circuit bonding device in response to the traffic burst;

in the second circuit bonding device, automatically receiving the seventh communications from the first bonded circuits and transferring the seventh communications over the third bonded circuits to the third circuit bonding device in response to the traffic burst; and

in the third circuit bonding device, automatically receiving the seventh communications from the third bonded circuits and transferring the seventh communications to the third user in response to the traffic burst.

In claim 17, the method of claim 11 wherein the communication system further comprises a bonding device control system, further comprising

in the bonding device control system, receiving user commands, and in response to the user commands, transferring a first device command to the first circuit bonding device, transferring a second device command to the second circuit bonding device, and transferring a third device command to the third circuit bonding device;

in the first circuit bonding device, receiving the first device command, and in response, receiving seventh communications from the first user and transferring the seventh communications over the first bonded circuits to the second circuit bonding device;

in the second circuit bonding device, receiving the second device command, and in response, receiving the seventh communications from the first bonded circuits and ' transferring the seventh communications over the third bonded circuits to the third circuit bonding device; and

in the third circuit bonding device, receiving the third device command, and in response, receiving the seventh communications from the third bonded circuits and transferring the seventh communications to the third user.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Mew /K. M./
Examiner, Art Unit 2616

/Chi H Pham/
Supervisory Patent Examiner, Art Unit 2616
8/11/08